

## Product Overview

### NCV303: Voltage Detector Series with Programmable Delay - Auto Rated

For complete documentation, see the data sheet.

The NCP/NCV302 and NCP/NCV303 series are second generation ultra-low current voltage detectors that contain a programmable time delay generator. These devices are specifically designed for use as reset controllers in portable microprocessor based systems where extended battery life is paramount. Each series features a highly accurate under voltage detector with hysteresis and an externally programmable time delay generator. This combination of features prevents erratic system reset operation. The NCP/NCV302 series consists of complementary output devices that are available with either an active high or active low reset. The NCP/NCV303 series has an open drain N-channel output with an active low reset output.

#### Features

- NCV Version for Automotive
- Quiescent Current of 0.5 uA Typical
- High Accuracy Under Voltage Threshold of 2.0%
- Externally Programmable Time Delay Generator
- Wide Operating Voltage Range of 0.8 V to 10 V
- Complementary or Open Drain Output
- Active Low or Active High Reset
- Pb-Free Packages are Available

#### Benefits

- AEC-Q100 Qualified

#### Applications

- Microprocessor Reset Controller
- Low Battery Detection
- Power Fail Indicator
- Battery Backup Detection
- Battery Backup Detection

## Part Electrical Specifications

| Product        | Pricing (\$/Unit) | Compliance  | Status | Voltages Monitored | V <sub>CC</sub> Max (V) | V <sub>(T0)</sub> Typ (V) | I <sub>Q</sub> Typ (µA) | Reset Active State | Reset Timer | Manual Reset | Watchdog Timer | Package Type      |
|----------------|-------------------|---|--------|--------------------|-------------------------|---------------------------|-------------------------|--------------------|-------------|--------------|----------------|-------------------|
| NCV303LSN10T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1                         | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN12T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.2                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN13T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.3                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN14T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.4                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN15T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.5                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN16T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.6                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN17T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 1.7                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN20T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 2                         | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN23T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 2.3                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN28T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 2.8                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |
| NCV303LSN29T1G | 0.3067            | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1                  | 10                      | 2.9                       | 0.5                     | Low                | No          | No           | No             | TSOP-5 / SOT-23-5 |

|                |        |   |        |   |    |     |     |     |    |    |    |                   |
|----------------|--------|---|--------|---|----|-----|-----|-----|----|----|----|-------------------|
| NCV303LSN30T1G | 0.4267 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 3   | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN36T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 3.6 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN42T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.2 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN43T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.3 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN44T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.4 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN45T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.5 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN46T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.6 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN47T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.7 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |
| NCV303LSN49T1G | 0.3067 | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 1 | 10 | 4.9 | 0.5 | Low | No | No | No | TSOP-5 / SOT-23-5 |

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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